

# Draft Regional Freight Plan

March 2011

**Draft**

The movement of freight both contributes to, and is determined by, economic growth as well as a changing economy.

The efficient and timely movement of freight contributes to economic and regional development by moving goods and providing services to the people living and businesses operating within the Wellington region. Improvements in efficient and timely freight movements will benefit the region by reducing the costs of doing business and contributing to a more business-friendly regional environment which can be a strong attraction to new businesses. These new businesses can also change the amount and nature of the freight task in the region.

### Strategic context

The Wellington Regional Land Transport Strategy 2010 – 2040 (RLTS) defines the appropriate role for land transport freight traffic as the safe and efficient movement of goods within, to, from and through the region.

The RLTS objectives of ‘assisting economic and regional development’ and ‘improve access, mobility and reliability’ have become more prominent in the Strategy as a response to Government’s focus on economic growth in the Government Policy Statement on land transport funding 2009. The Regional Freight Plan will be an important step in implementing those RLTS objectives.

Following on from these objectives, there are a number of RLTS outcomes and targets of particular relevance to the Freight Plan, including:

RLTS outcomes	2020 RLTS targets
7.1 Improved regional freight efficiency	Improved road journey times for freight traffic between key destinations
7.2 Improved inter-regional freight efficiency	Infrastructure constraints to rail freight movements are removed
8.1 Improved safety, efficiency and reliability of road, public transport and freight links to the north of the region	Progress measured using information collected for congestion (4.1), reliability (4.3), safety (5.1) and inter-regional freight (7.2)
4.1 Reduced severe road congestion	Average congestion on selected roads will remain below year 2003 levels despite traffic growth (20 seconds delay/km in 2003; 23.4 seconds delay/km in 2010)
4.2 Maintained vehicle travel times between communities and regional destinations	Average vehicle journey ‘speeds’ shown in travel time surveys for selected key routes will remain at or above year 2003 levels (55 km/h in 2003; 52 km/h in 2010)
4.3 Improved reliability of the strategic roading network	Continual reduction in total incident hours
6.3 Sustainable economic development supported	Continued reduction in vehicle kilometres travelled per GDP

## **The role of freight**

Freight includes anything transported as part of a commercial arrangement – from a small couriered document carried by cycle messenger to the movement of logs, containers and heavy machinery.

The region's freight network consists of road, rail and sea freight. Air freight plays a fairly minor role at this time, but may increase due to planned investment by Wellington International Airport. The two primary freight modes in the Wellington region are road and rail.

Road freight is particularly used for the movement of goods between many origins and many destinations. Rail freight primarily handles the movement of high volumes of massed or bulk goods over longer distances as well as between key production and distribution nodes. Domestic freight movement by coastal shipping (with the exception of the inter-island ferry services) is relatively minor compared to the other modes and is mostly used to move bulk goods.

## **How freight moves in the region**

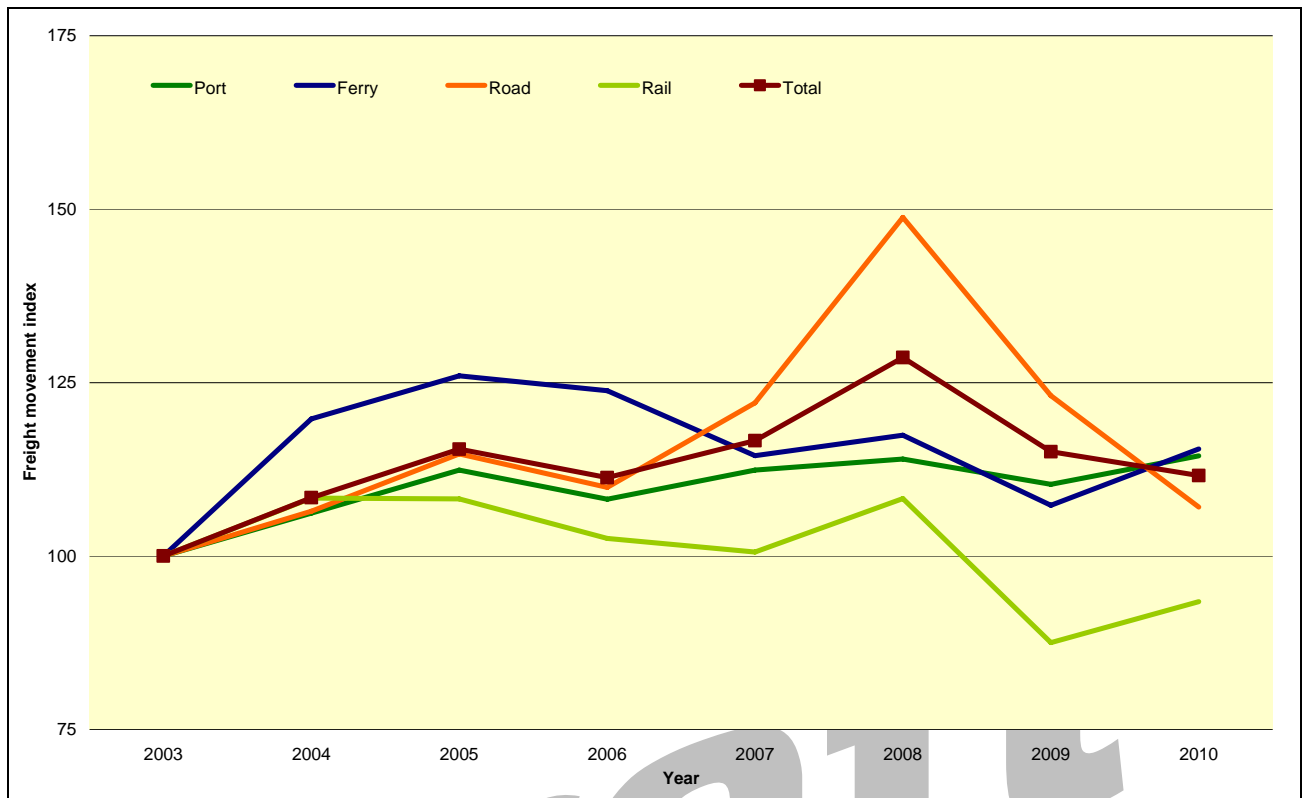
The Wellington region receives about 2.5 million tonnes more freight than it generates based on 2006/07 figures (the latest available) – making the region a net importer of freight.

Total freight movement increased until 2008 but since then there has been a steady decrease, which may reflect the global economic recession. However, total freight movement still remains higher now than at the beginning of the decade. Freight movement at CentrePort and by ferry have recovered to their relative 2008 levels.

Freight trips on the road by Heavy Commercial Vehicles (HCV) comprise the vast majority of freight movements in, out and through the Wellington region. The annual average daily traffic volumes of freight movement on SH1 is fairly consistently above 2,000 heavy vehicles between Paramata and the Terrace Tunnel, and on SH2 between SH58 and Ngauranga. SH1 carries more inter-regional freight trips while SH2 primarily serves freight moving either between Hutt Valley and Wellington City or freight that turns north on SH 1 at Ngauranga.

Freight coming into the Wellington region has a relatively high portion of rail and maritime transport in comparison to freight leaving the region. CentrePort acts as a hub port whereby domestic freight is trans-shipped through Wellington from smaller New Zealand ports or rail destinations before being exported. An example of this is logs, which are moved from throughout the lower North Island and upper South Island for export internationally.

Most of the freight traffic between the North and South Island is carried on road or rail, which means the trip transits through the Wellington region. The amount of freight moving through the region from the north is significantly more than that moving through from the south. This reflects the North Island's economic dominance and Auckland Port as the primary international port for imports and exports.



Inter-regional freight movements. 2003 = 100. Sources: CentrePort; Strait Shipping; New Zealand Transport Agency; KiwiRail

### Key changes in the freight sector

There are a number of trends affecting the freight sector, the most significant include:

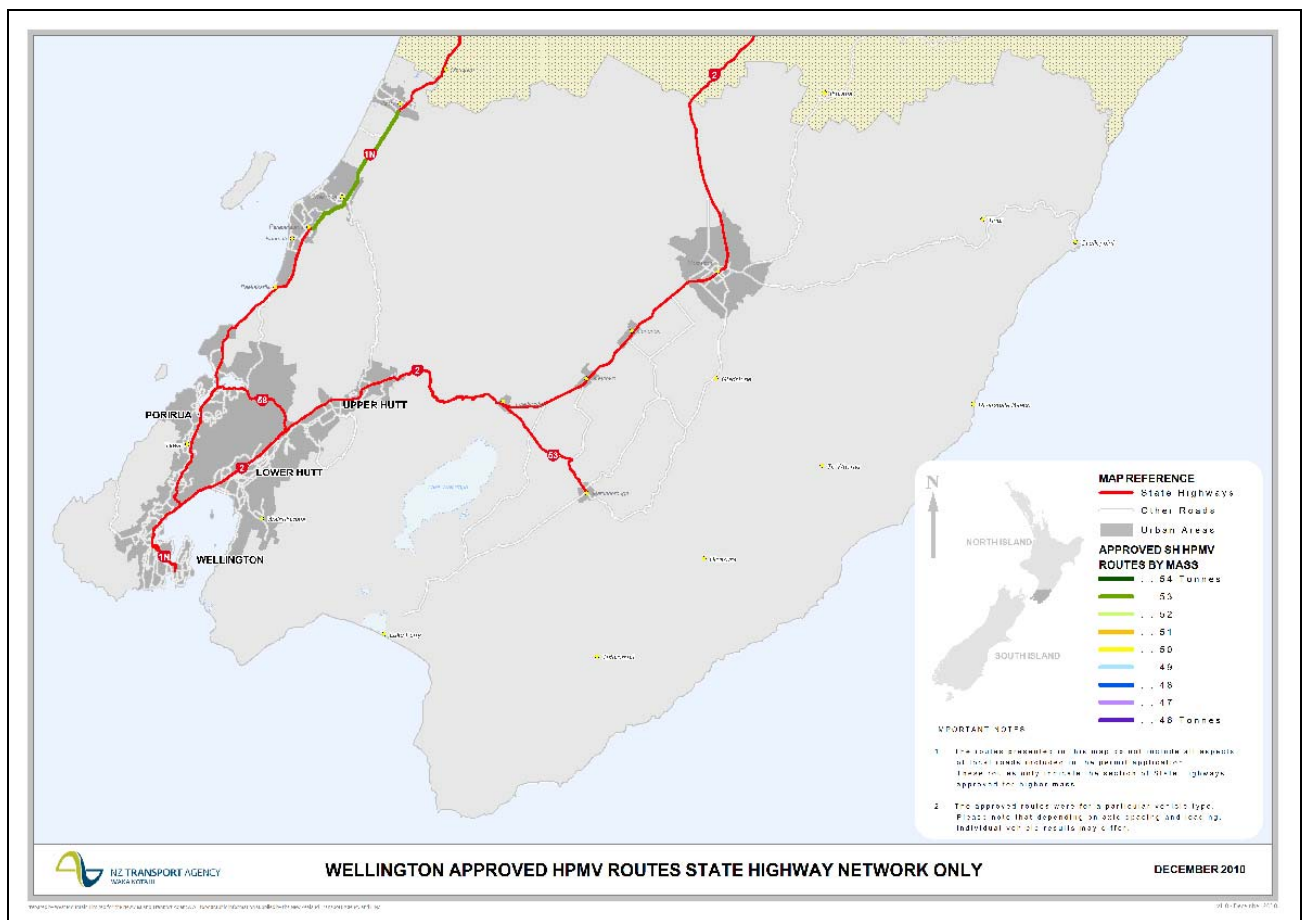
- Growth in centralised distribution centres and how these impact just-in-time delivery services
- Possible introduction of bigger ships making calls at select New Zealand ports
- Introduction of the Emissions Trading Scheme, changes to Road User Charges and the rising cost of fuel.

The introduction of high productivity motor vehicles (HPMV) will change the composition of the New Zealand truck fleet. These vehicles are combinations of truck configurations which exceed the standard 44 tonne gross vehicle mass and 20 (or sometimes 22) metres total length. HPMVs can only operate over approved routes under permits issued by the NZ Transport Agency for state highways and road controlling authorities for other roads.

These vehicles may reduce the number of freight trucks using the road network – making more efficient use of road space.

The NZ Transport Agency (NZTA) is conducting route studies to identify potential HPMV routes from origin to destination in order to streamline the permitting process. The State Highway network in the Wellington region has been cleared for use by HPMVs. Local roads on routes that are not currently permitted may become the focus of improvement and maintenance work to upgrade them for the use of HPMVs.

A map of the currently approved routes in the Wellington region is below.



## Freight issues and opportunities

Identified issues and opportunities for freight in the Wellington region include:

**Growth in freight movement** – the amount of freight moving through New Zealand is widely expected to double by around 2040. The Wellington region’s economy and population is expected to continue to grow at a modest rate, driving an increasing demand for travel and freight movement. Several opportunities exist to cater for this freight growth and these are outlined below.

**Freight efficiency** – freight movement is affected by similar issues to those identified for commuter vehicles. These issues include congestion, reliability and travel time variability, rail constraints, peak oil as well as environmental and affordability issues. For example, congestion on SH1 at Aotea and SH2 at Ngauranga and Petone as well as the Petone Esplanade are areas of particular relevance to freight during peak times. Several infrastructure improvement projects can alleviate these issues.

**Empty running** – refers to a truck or train trip that is not carrying freight (for example, a truck delivering goods and returning without a load) and represents inefficiency in the logistics chain. Since the Wellington region has more freight coming in than going out, a certain amount of empty running is currently unavoidable. Growing exports to other New Zealand regions and internationally (in line with the Wellington Regional Strategy) is a key opportunity to limiting empty running and improving the efficiency of freight movement.

**Access to CentrePort and the ferry terminal** – is a key future issue due to predicted freight increases. Access is currently constrained and convoluted. There is also conflict with commuter traffic along Aotea and Waterloo Quay. Greater Wellington commissioned the Wellington Port Access Concept Plan to identify a long-term solution for road and rail access to and from CentrePort and the Interislander Ferry Terminal. This study is expected to feed into the NZTA’s Ngauranga to Aotea Quay project – which is part of the Wellington Road of National Significance.

**Ferry capacity** – the main route for domestic rail-based containerised freight is between Auckland and Christchurch. All rail freight on this route transits through the Interislander Ferry Terminal and is expected to grow considerably. The Interislander and Strait Shipping ferries also handle road freight. The Interislander terminal has 23 slots for trucks to park, however 80 truck exchanges occur with each ferry voyage. Greater capacity at the ferry terminals will be needed to support the growing freight business and this will require expanded terminals and docking areas.

**Port capacity** – lack of space for storage at CentrePort may require the development of offsite freight storage points or inland hubs. Palmerston North is already emerging as one such hub for the lower North Island. CentrePort currently has a 7 hectare log storage area at Seaview.

**Airport capacity** – Wellington International Airport currently lacks the capacity to cater for a large growth in airfreight. The 2030 Master Plan identifies a series of infrastructure improvements at the airport to increase airfreight capacity – including a possible future extension of the runway. These improvements should be coordinated with improvements to the state highway around the airport, part of the Wellington Road of National Significance project.

## **Freight initiatives**

Several projects identified in the Corridor Plans respond to the issues identified above and are likely to have significant freight benefits. These projects are identified in the following table. Refer to the relevant Corridor Plans for the details on these projects.

	Ngauranga to Wellington Airport Corridor Plan	Western Corridor Plan	Hutt Corridor Plan	Wairarapa Corridor Plan
<b>Freight projects</b>				
<b>Levin to Wellington Airport Road of National Significance</b>				
MacKays to Peka Peka Expressway (former Western Link Road)		✓		
Transmission Gully		✓		
Basin Reserve improvements	✓			
Peak period lanes on SH1 between Ngauranga to Aotea Quay	✓			
Four laning of Wellington Road and Ruahine Street	✓			
Duplication of Mt Victoria Tunnel	✓			
Duplication of Terrace Tunnel and Waterfront lane reduction	✓			
<b>Rail projects</b>				
Improve rail alignment between Pukerua Bay and Paekakariki		✓		
Advocate to central government to encourage investment in the rail network that supports the use of rail as a safe, sustainable, and efficient solution for the movement of freight to/from and through the Wairarapa corridor				✓
Work with KiwiRail, CentrePort, NZTA and forestry companies to investigate removal of identified infrastructure and rolling stock constraints affecting rail freight movement between the Wairarapa corridor and key freight hubs, such as CentrePort				✓
<b>Travel Demand Management</b>				
Develop and implement ATMS and HOV proposals		✓		
Construct a reversible HOT lane between Petone and Ngauranga			✓	
Reallocate existing general traffic lanes on Hutt Road between Ngauranga and Thorndon for bus lanes and possibly high occupancy vehicles	✓			
Review District Plan land use controls to align with the outcomes of the Wellington Regional Strategy		✓		
Upgrade Tawa interchange to address safety issues		✓		
Upgrade SH58 between TGM and SH2		✓	✓	
Design and construct SH2/SH58 grade separation			✓	
Grenada – Gracefield Stage 1: SH1 to SH2		✓	✓	
Grenada – Gracefield Stage 2: Cross Valley Link		✓	✓	
Upgrade Rimutaka Hill Road to 55km/h design standards				✓
Intersection improvements at Norfolk Road/State Highway 2 and Buchanan Place/State Highway 2				✓

Advocate for improvements to the Pahiatua Track and key connecting links				✓
Heavy vehicle bypass east of Masterton				✓
Investigate the potential for other heavy vehicle traffic only bypasses				✓
Ensure provisions to the Wairarapa Combined District Plan that facilitate the development of a log transfer and storage site at Waingawa are retained				✓
Support commercial development of a log transfer and storage site at Waingawa				✓
Review the potential impacts of a significant increase in freight volumes (and likely increases in heavy vehicle dimensions) on the state highway network within the Wairarapa Corridor and identify any new projects or initiatives needed to accommodate this demand in a safe and efficient manner				✓

A number of new initiatives have also been identified which are not covered under existing plans. The new initiatives for freight are detailed in the following action programme.

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Actions	Responsibility	Cost	Timing	Target / measure
<p><b>Integrate planning processes</b></p> <p>Support the implementation of projects with significant freight benefits identified in the Corridor Plans for the region</p>	All involved parties	Administrative	Ongoing	Projects implemented
<p><b>Improve road freight reliability</b></p> <p>Ensure the design of the Wellington Road of National Significance (RoNS) projects facilitate the efficient movement of freight, including provision for over-dimension and over-weight vehicles</p>	NZTA	Infrastructural	Ongoing	Roads are designed to accommodate HPMVs
<p><b>Increase road freight efficiency</b></p> <p>Permit High Performance Motor Vehicle (HPMV) to increase economic efficiency of road freight.</p> <ul style="list-style-type: none"> <li>• Work with industry to develop pro-forma vehicles.</li> <li>• Identify barriers in each TA that limit potential HPMV routes.</li> <li>• Coordinate work programmes to strengthen potential HPMV routes on the State Highway and on local roads.</li> <li>• Inform industry of new opportunities to carry additional loads.</li> </ul>	NZTA (lead) TAs	Administrative and Infrastructural	Ongoing	Approved O/L and HPMV permits
<p><b>Facilitate introduction of HPMVs</b></p> <p>Complete studies of potential HPMV routes that include the Wellington region to identify which pro-forma vehicle types can use which roads.</p>	NZTA (lead) TAs	Administrative	2012	Routes published
<p><b>Improve Port access</b></p> <p>Complete the Wellington Port Access Concept Plan to improve access to and from CentrePort from the State Highway and rail network and determine how it will be implemented, including through integration with the Ngauranga to Aotea RoNS project.</p>	GWRC NZTA Interislander CentrePort WCC	Administrative	2011	Key Project recommendations are carried forward in the RLTP and/or as part of the RoNS project

<p><b>Retain rail options</b></p> <p>Investigate options to retain the North Wairarapa Rail line as:</p> <ul style="list-style-type: none"> <li>• A long term option for freight movement</li> <li>• An alternate emergency route for the North Island Main Trunk rail line</li> </ul>	<p>GWRC (lead) KiwiRail MDC CDC SWDC</p>	<p>Administrative</p>	<p>2012</p>	<p>North Wairarapa Rail line remains operational</p>
<p><b>Provide for expected port freight growth</b></p> <p>Investigate further options for inland port facilities and appropriate transport connections to ease storage pressures on existing port land</p>	<p>CentrePort</p>	<p>Administrative</p>	<p>Ongoing</p>	<p>Options are investigated</p>
<p><b>Improve knowledge of freight supply chains and requirements</b></p> <p>Investigate local road usage by Heavy Commercial Vehicles and Light Commercial Vehicles to knowledge of freight supply chains and requirements, including:</p> <ul style="list-style-type: none"> <li>• Origins and destinations</li> <li>• Timing of deliveries</li> <li>• Improvements necessary to local roads</li> <li>• Regulations on loading zones</li> </ul>	<p>TAs</p>	<p>Administrative</p>	<p>2015</p>	<p>Reports published</p>
<p><b>Improve freight transport modelling</b></p> <p>Conduct a survey and update the LCV and HCV freight matrix of the Wellington Transport Strategic Model.</p> <p>Advocate to Central Government to investigate how the fuel efficiencies of the New Zealand HCV fleet will change over the next 30 years in order to adequately measure HCV fuel usage and contribution to New Zealand's greenhouse gas emissions profile.</p>	<p>GWRC  GWRC</p>	<p>\$128,000  Administrative</p>	<p>2015  Ongoing</p>	<p>Updated freight matrix included in WTSM  Data published</p>

<p><b>Facilitate information sharing</b></p> <p>Advocate for the 'Freight Information Gathering System' to include data on the tonnage, commodities, and modes share of freight travelling through the Wellington region</p>	<p>GWRC TAs</p>	<p>Administrative</p>	<p>Ongoing</p>	<p>Data included in 'Freight Information Gathering System'</p>
<p><b>Improve freight facilities</b></p> <p>Investigate the need for and potential location of overnight truck parking facilities</p>	<p>TAs</p>	<p>Administrative</p>	<p>2015</p>	<p>Investigation report published</p>
<p><b>Protect short haul rail freight</b></p> <p>Advocate to KiwiRail and HCC for the protection of the Gracefield/Seaview rail corridor</p>	<p>GWRC</p>	<p>Administrative</p>	<p>Ongoing</p>	<p>Corridor protected</p>

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